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LEASING MUNICIPAL MOTOR EQUIPMENT

What are the advantages and disadvantages of leasing or renting municipal motor equipment? How does leasing compare with city ownership and employee ownership?

The leasing of motor equipment, both passenger vehicle and trucks, is increasing rapidly in business and industry in the United States. This is evidenced by the number of leasing agencies and the tremendous increase in the number of vehicles made available by these companies. The practice of leasing motor equipment is not nearly as widespread in municipalities, but municipal administrators have indicated great interest in the subject since they are always conscious of comparative cost factors and supplying more and better services.

To determine how widespread municipal practices are in this regard, the International City Managers' Association submitted a questionnaire on motor equipment leasing to 113 representative cities, of which 77 replied. Of these 77 cities, 34 indicated that they do not lease any motor equipment; 11, that they lease only automobiles; 30, that other motor equipment is rented; and two cities, that both automobiles and other motor equipment are rented. One variation is the lease-maintenance arrangement used in Santa Cruz, California — that is, the equipment is purchased but the maintenance is contracted. Although it may seem self-evident, it might be well to point out here that before any cost comparisons can be made it is necessary for the individual cities to maintain at least a simplified method of cost records. This will be discussed in a later section of this report.

Automobile Leasing

Municipal experience with car rental plans has been discussed in a prior MIS report (No. 96, January, 1952). This section brings portions of that report up to date. The type of equipment most often leased through the formalized placement of competitive bids is police cars. Three cities reported that they no longer rent cars. Traverse City, Michigan, and Inglewood, California, no longer lease police vehicles, and Arcadia, California, has just purchased its own police vehicles in order to make a study of comparative costs.

One city, Wyoming, Ohio, formally leased police vehicles but has shifted to city ownership. However, they still lease an ambulance because of the extremely low lease price (\$60 per month for an \$11,000 ambulance) with the city assuming all of the operating expense.

Provisions of the lease agreements of 12 cities are summarized in the individual city statements below.

Alhambra, California (53,558). This city has recently entered into an arrangement with a local agency for the lease of 12 new Oldsmobile four-door sedans at a monthly rental of \$113. The lessor supplies the following: transfer of special equipment, washing and cleaning, oil, lubrication, tires and tubes, regular inspection and preventive maintenance, road service, and repairs. The equipment is replaced every 12 months or 24,000 miles whichever occurs first. The city, in turn, is required to supply the license tags, fire and theft insurance, public liability and property damage insurance, collision insurance, painting and lettering, gasoline, and collision repairs. This city feels that they are able to secure better equipment and that it will be less expensive in the long run. Their experience in the administration of the lease has been satisfactory to date.

Bay City, Michigan (52,523). This city leases 17 eight-cylinder Ford sedans, both two-door and four-door, at a cost of 4.5 cents per mile for the two-door sedans and 4.555 cents per mile for the four-door sedans. Bills are submitted on a monthly basis. The equipment is replaced every 60,000 miles. The lessor agrees to supply the lettering for the car, washing and cleaning, oil and lubrication, anti-freeze, tires and tubes, regular inspection and preventive maintenance, road service, and repairs. The city provides the license tags, fire and theft insurance, public liability and property damage insurance, transfer of the special equipment, gasoline, and collision repairs.

It is felt by this city that "The police cars are being rented because the city has a number of its own motorized equipment which at times made it difficult for maintenance of police cars during peak loads, and, at various times, seasonal work did not permit proper attention to the police cars. It was felt that police cars should be in service at all times. On the rental type basis the cars are serviced immediately and are always in use or at least available when needed."

This city states that it has had excellent cooperation from the lessor.

Boulder, Colorado (19,999). This city leases six vehicles of the middle class line at a cost of 5.2 cents per mile. Payments are made on a quarterly basis. The equipment is replaced every 6 months or 30,000 miles, whichever occurs first. The lessor agrees to supply painting and lettering, transfer of special equipment, washing and cleaning, oil, lubrication, anti-freeze, tires and tubes, regular inspection, preventive maintenance, road service, and repairs. The city agrees to furnish license tags, public liability and property damage insurance, gasoline, and collision repairs. This city feels that although it is at the present time leasing the equipment, the recent increase in the rate (from 4.5 to 5.2 cents per mile) will necessitate reconsideration as to whether to continue leasing or to change to ownership.

Bozeman, Montana (11,325). This city leases one Chevrolet sedan and one Chevrolet station wagon at a rental rate of \$112 per month per car with payments being made on a monthly basis. Vehicles are replaced every 12 months. The lessor supplies washing and cleaning, lubrication, regular inspection and preventive maintenance, and repairs including labor and replacement of parts. The city furnishes fire and theft insurance, public liability and property damage insurance, collision insurance, painting and lettering, transfer of special police equipment, gasoline and oil, anti-freeze, tires and tubes, and collision repairs. This city feels that the slight additional expense involved is well warranted in that the vehicles are kept in first-class condition at all times.

Columbia, Tennessee (10,911). This city leases its police vehicles with the rental rate determined on a monthly basis and the payments made on an annual basis. The lessor agrees to supply oil, lubrication, regular inspection and preventive maintenance, and repairs, while the city agrees to provide license tags, fire and theft insurance, public liability and property damage insurance, collision insurance, painting and lettering, transfer of special police equipment, washing and cleaning, gasoline, anti-freeze, tires and tubes, collision repairs, and road service. This city feels that the leasing of equipment has been economical, and their experience with the lessor has been very good.

Highland Park, Illinois (20,480). This city leases six Ford two-door sedans at a monthly rental rate of \$175 with the payments being made on a monthly basis. The lessor agrees to supply painting and lettering, transfer of special police equipment, oil, lubrication, anti-freeze, tires and tubes, regular inspection and preventive maintenance, road service, and repairs. The city agrees to supply the license tags, fire and theft insurance, public liability and property damage insurance, collision insurance, washing, cleaning, gasoline, and collision repairs. This city feels that operations have proved less expensive than municipal ownership and maintenance, and it has permitted the central garage facility to devote more time to maintenance of heavy equipment for public works functions. The city has received prompt and adequate service from the lessor although on occasion it has been necessary to negotiate clarification of the lease.

Las Vegas, Nevada (44,795). This city leases police cars on a fiscal year basis at a rate of \$150 per month, with payments being made on a monthly basis. The equipment is replaced every 12 months or 40,000 miles whichever occurs first, and replacement equipment is made available during "down time," anything over five days. The lessor agrees to furnish the painting, oil, lubrication, tires and tubes, regular inspection and preventive maintenance, road service, and repairs.

The city agrees to furnish the license tags, fire and theft insurance, public liability and property damage insurance, collision insurance, lettering, transfer of special police equipment, gasoline, anti-freeze, and collision repairs.

Manhattan, Kansas (19,056). This city leases three cars, two Oldsmobiles and one Mercury, with a rental rate varying from \$133 per month to \$153 per car per month. The payments are made on a monthly basis. The equipment is replaced every 12 months or 50,000 miles. The lessor agrees to furnish washing and cleaning, oil, lubrication, anti-freeze, tires and tubes, regular inspections, preventive maintenance, road service, and repairs. The city provides license tags, fire and theft insurance, public liability and property damage insurance, collision insurance, painting and lettering, transfer of special equipment, gasoline, and collision repairs. This city feels that the leasing of vehicles is more economical because they do not have a centralized garage facility, and the firms furnishing the cars keep them in excellent shape. The experience of the city in the administration of the lease has been excellent.

Monterey Park, California (29,277). This city leases Ford four-door sedans at a rental rate of 1.25 cents per mile with the payments made on a monthly basis. The vehicles are replaced every 12 months or 30,000 miles for police cars and every 24 months for passenger vehicles. The lessor agrees to furnish oil, lubrication, anti-freeze, regular inspections, preventive maintenance, and repairs, while the city agrees to furnish the license tags, fire and theft insurance, public liability and property damage insurance, collision insurance, painting and lettering, transfer of special equipment, washing and cleaning, gasoline, tires and tubes, collision repairs, and road service. This city feels that leasing of motor equipment is advantageous because of a lack of centralized garage facilities for passenger and police cars, although all other vehicles are maintained in the city's garage.

Monrovia, California (25,286). This city leases five Plymouth automobiles at a monthly rental rate of \$148.50 per car for those cars with the special carburetors and \$142.50 per car for those cars with the standard carburetors, with the payments made on a monthly basis. The equipment is replaced every 12 months. The lessor agrees to furnish gasoline, oil, lubrication, tires and tubes, regular inspection and preventive maintenance, and road service, while the city agrees to furnish fire and theft insurance, public liability and property damage insurance, collision insurance, painting and lettering, transfer of special equipment, washing and cleaning, collision repairs, and other repairs. This city feels that leasing is more efficient for a city of its size. However, they feel that they are approaching the point where they will change over to the ownership of police vehicles since they do have a central garage. The administration of the lease in this city has been spotty.

Newark, Ohio (34,275). This city leases seven vehicles for its police service, five cruisers and two detective cars, at a rental rate of \$115 per month for the two detective cars and \$125 per month for the cruisers. Payment is made on a monthly basis. The vehicles are kept for a period of 12 months, and the city agrees to pay an additional 3.0 cents per mile for every mile over 25,000 miles traveled during this time. The city agrees to pay for all of the items normally carried. The city has found the leasing of police cars to be satisfactory and economical.

Saulte Ste Marie, Michigan (17,912). This city leases three Chevrolet four-door sedans at a cost of 4.5 cents per mile. Payments are made on a monthly basis during the three-year term of the lease. The equipment is replaced every 12 months or every 30,000 miles. The lessor agrees to provide washing and cleaning, gasoline, oil, lubrication, anti-freeze, tires and tubes, regular inspection, preventive maintenance, collision repairs, road service, and repairs, while the city assumes the supplying of license tags, fire and theft insurance, public liability and property damage insurance, collision insurance, painting and lettering, and the transfer of special police equipment. This city has had good experience with the administration of the lease, top service, and no difficulty in renegotiating the lease.

Leasing Other Motor Equipment

Of the 32 cities making information available concerning the leasing of other motor equipment, 20 cities stated that they rented bulldozers; 14 cities, power shovels; 10, road graders; nine, trucks up to two and one-half ton capacity; eight, trucks over two and one-half ton capacity; five, cranes;

and the others, a street sweeper, a paver, sidewalk plows, compressors, backhoes, front-end loaders, trenchers, and snow loading equipment.

The cities that responded to the question were unanimous in stating that the equipment was rented through informal placement of quotations and that the equipment was rented for the public works department, here including the water and sanitation departments. The rental rate for this equipment was determined by the hour in 16 cities and by the day in four cities. Replacement equipment was made available in eight of the cities during "down time" of the rented equipment and not made available in nine of the cities, with the remaining cities not answering this question.

In a majority of the replies, the cities stated that the renting agency supplied the following: license tags, fire and theft insurance, public liability and property damage insurance, collision insurance (when applicable), washing and cleaning, gasoline and oil (except over and beyond the full tanks with which the equipment started the day), lubrication, tires and tubes, repairs, and road service.

The reasons given by the cities for the rental of motor equipment included: peak seasonal loads, such as trucks during the summer street projects or winter snow removal, in 14 cities; the necessity for special equipment which it would be otherwise uneconomical for the city to own and maintain, 12 cities; use of equipment for special projects such as the expansion of water and sewer lines when undertaken by municipal forces, six cities; emergencies, five cities; and the breakdown of municipal equipment, one city.

Municipal or Employee Ownership

Most cities will continue municipal ownership, employee ownership, or a combination of the two because renting or leasing presents no savings. The advantages and disadvantages are set forth in MIS Report No. 28 (November, 1946), *Management of City-Owned Motor Equipment*. Further information on municipal and employee ownership are set forth in two MIS reports: No. 64 (May, 1949), *The Management of a Central Municipal Garage* and No. 79 (August, 1950), *Travel and Auto Allowances*.

Equipment Records

Every piece of municipal equipment incurs expense at a different rate. Adequate cost records are needed if a city is to know the facts concerning the relative economies possible in the operation of different types of motor vehicles and to have data available as to the relative merits of owning equipment versus leasing equipment. Proper accounting of equipment cost is necessary in order to establish an equitable schedule for rental rates. Such rates should approximate the cost of making the equipment available for each hour or mile of use and should include not only the direct operating costs but also maintenance, depreciation, insurance, and overhead.

The detailed cost accounts for automotive equipment should be maintained on an individual equipment record in order to provide special cost and performance data. For an excellent discussion of the types of records to be kept, see Walter O. Harris, *Municipal Public Works Cost Accounting Manual* (Chicago: Public Administration Service, 1955. 97pp. \$3). The major forms are reproduced in *Municipal Public Works Administration* (Chicago: International City Managers' Association, fifth edition, 1957. 449pp. \$7.50).

Monthly totals of the several classes of costs and of rentals earned are posted with other data so that operating and dispatching efficiency can be revealed. Quarterly and "to-date" cost and earnings figures are shown on the individual equipment record so that periodically the cost and operating efficiency of the equipment may be appraised.

Figure 1 shows a copyrighted form used by the National Truck Leasing System to aid in presenting a complete picture of the total cost per year, both fixed and mileage, of ownership of automotive equipment. Even though all of the items on the form do not apply to cities (property taxes for example), the form is a useful guide to ascertaining all costs, hidden and direct.

With all data reduced to a measurable standard, it usually is clear as to whether ownership



From **NATIONAL TRUCK LEASING SYSTEM, INC.** 23 East Jackson Boulevard, Chicago 4, Illinois

In most businesses where the operation of cars and trucks is not the primary function of the business, it is difficult to arrive at accurate figures as to what the costs involved in the operation of the vehicles actually are. For this reason, this list of expenses is submitted as always being present in the operation of motor vehicles. If you will, from the best sources of information available, place a cost on each of the following items the result will be of extreme value in compiling your vehicle operating costs under ownership.

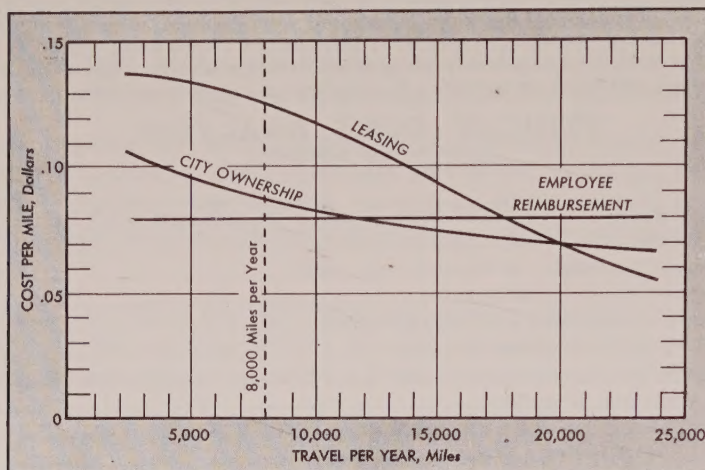
VEHICLE COST ANALYSIS

(Under Private Ownership)

FIXED EXPENSE

			PER YEAR	
	(\$)	XXXX	XX
1. TOTAL CAPITAL INVESTMENT.....				
2. INTEREST ON INVESTMENT.....				
3. FINANCE OR CARRYING CHARGES. (IF BOUGHT ON TIME.).....				
4. DEPRECIATION ON CARS OR TRUCKS.....				
5. SIGN WORK INCLUDING REPAINTING AND RE-LETTERING.....				
6. LICENSE TAGS (STATE-CITY-CITY INSPECTIONS.).....				
7. PROPERTY TAXES (CITY, STATE AND COUNTY ON ALL VEHICLES PLUS ALL EQUIPMENT USED FOR MAINTENANCE OF SAME.).....				
8. FIRE AND THEFT INSURANCE ON CARS OR TRUCKS.....				
9. PUBLIC LIABILITY AND PROPERTY DAMAGE INSURANCE.....				
10. COLLISION INSURANCE.....				
11. GARAGE RENT. (INCLUDES INSURANCE, TAXES, MAINTENANCE AND DEPRECIATION OF BUILDING AND PARKING SPACE IF OWNED. IF NTLS SYSTEM SERVICE ELIMINATES NEED FOR GARAGE, ESTIMATE VALUE OF GARAGE AND PARKING SPACE UTILIZED OTHERWISE.).....				
12. WASHING AND POLISHING. (INCLUDING SOAP, SPONGES, WAX, CHAMOIS, HOSE, ETC.).....				
13. UNIFORMS, OVERALLS, RAGS AND LAUNDRY.....				
14. GARAGE LABOR.....				
15. GARAGE SUPERVISION.....				
16. OFFICE WORK, RECORD KEEPING, STATIONERY, OFFICE MACHINES AND SUPPLIES, MAINTENANCE OF COST RECORDS. PAYMENT OF MULTIPLE BILLS. CHECKING, TYPING, POSTING AND POSTAGE.....				
17. ADMINISTRATIVE COST. TIME OF MANAGEMENT CONSUMED IN TRUCK SUPERVISION, HANDLING INSURANCE, INVESTIGATING ACCIDENTS, PURCHASING, INTERVIEWING SALESMEN, SCHEDULING MAINTENANCE AND OTHER DETAILS.....				
18. TIME LOST DUE TO DELAYS FROM LACK OF SUBSTITUTE OR EXTRA TRUCKS AT TIME OF BREAKDOWNS.....				
19. GARAGE AND PARKING AREA LIGHT, HEAT, WATER, TELEPHONE.....				
20. DEPRECIATION OF GARAGE AND SHOP EQUIPMENT INCLUDING REPLACEMENT OF LOST AND BROKEN TOOLS.....				
21. ROAD SERVICE FOR BREAKDOWNS, WRECKS AND TIRE REPAIRS.....				
22. SPECIAL EQUIPMENT (TARPAULINS, HEATERS, RADIOS, SHELVES OR RACKS.)..... PLEASE REMEMBER IN CALCULATING TRUE COSTS, CONSIDERATION MUST BE MADE OF WORKMEN'S COMPENSATION INSURANCE, GARAGE LIABILITY INSURANCE, SOCIAL SECURITY AND OLD AGE BENEFIT. PREMIUMS PAID BY MANAGEMENT ON GROUP AND HEALTH INSURANCE. EXTRA HELP EMPLOYED DURING TIMES OF VACATIONS OR ILLNESSES.				
TOTAL FIXED COSTS				
MILEAGE EXPENSE				
23. GASOLINE PURCHASED.....				
24. OIL PURCHASED.....				
25. GREASE PURCHASED.....				
26. TIRE AND TUBE COST, INCLUDING REPAIRS AND RECAPS.....				
27. REPLACEMENT AND DAMAGE REPAIR PARTS FOR VEHICLES.....				
28. REPAIRS DONE OUTSIDE OF COMPANY SHOPS.....				
29. ANTI-FREEZE AND TIRE CHAINS.....				
TOTAL MILEAGE COSTS				
TOTAL COST PER ANNUM—(FIXED AND MILEAGE)				

or leasing would be more advantageous when these data are compared with the bids submitted by the leasing companies and the costs of employee reimbursement. These costs could be graphically presented as shown in Figure 2.



● GRAPHICAL comparison of passenger automobile operation costs. These figures do not represent the experience of any particular city but show how a graph, made up with a City's own cost figures, can determine the relative advantages of each system. For example, if a given assignment calls for travel of 8,000 miles per year, employee reimbursement would cost less than either municipal ownership or leasing.

Figure 2

Guidelines

In order to assist the municipal administrator in the decision as to how to acquire the necessary municipal motor equipment, the following guidelines are presented. These guidelines and Figure 2 are taken directly from an article, "Leasing of Motor Equipment," in *Public Works* magazine (July, 1958) by J. J. Carrell, director of training, the International City Managers' Association, and are used with the permission of the publisher.

Pay Employees When

1. Individual automobile mileage is low.
2. Travel involves long periods when the car is idle.
3. The city's vehicle fleet is small.
4. Legal and/or fiscal problems would make city purchase or lease difficult.
5. Individual vehicle mileage is about 18,000 miles per year or less and vehicles are currently being leased.
6. Individual vehicle mileage is about 10-12,000 miles per year or less and the current system is city ownership.

Lease When

1. The item of motor equipment has a high capital cost and the city would have difficulty in setting aside that much money for one year.
2. It is an expensive item and receives infrequent use.
3. The necessary skilled operator would be difficult for the city to train or to acquire and retain.

4. Vehicles operated on an employee-reimbursement basis are recording about 18,000 miles per year or more.
5. In the case of the city-owned fleet, when the city garage is inefficient, or when the city cannot or does not hire reasonably competent mechanics.
6. The item is apt to be obsolete shortly due to mechanical advances.
7. Legal, fiscal or political problems prohibit city purchase, and when employee reimbursement would be more expensive than leasing.
8. It is desirable or necessary to have a guarantee of immediate replacement of the vehicle when it is out of service.
9. Peak load or emergency demands cannot be met economically through a city pool or through payments to employees for the use of their cars.
10. The organization is small and the type of equipment or its use would call for unusually high maintenance cost.

Own When

1. The auto fleet is sizeable, perhaps 15 or more (this is an arbitrary figure which will vary widely with local conditions).
2. A city vehicle would not be idle for a large proportion of the time if assigned directly or through a pool to an employee traveling only intermittently, or for short mileage.
3. The city can hire competent mechanics.
4. The city maintenance facilities are satisfactory and are well managed.
5. The mileage of autos operated under a leasing or employee reimbursement arrangement amounts to or exceeds approximately 10,000 to 12,000 miles per year per car.
6. There are no legal or fiscal obstacles to purchase, and in the case of heavy equipment good operators could be hired; it is unlikely to become obsolescent before the end of its normally useful life; it is used regularly or often; the necessary funds can be found to make a purchase; and replacement and repair parts are quickly available.

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Note. This report was prepared by Philip R. Tuhy, staff member, the International City Managers' Association.

